

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 60264 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Nov 30 2012

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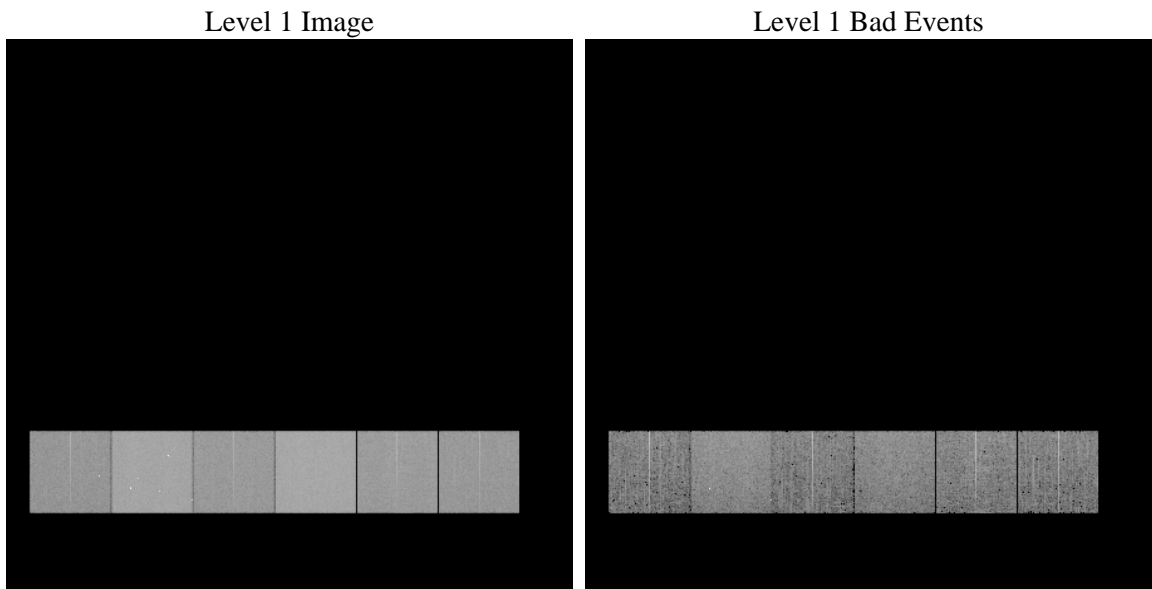
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 60264   | Observation id                              |
| title    | ACIS-456789 diagnostics                         | Proposal title                              |
| observer | CHANDRA engineering request/realtime commanding | Principal investig                          |
| object   | &#160   | Source name                                 |
| dtcycle  | 0   | &#160                                       |
| cycle    | P   | events from which exps?<br>Prim/Second/Both |
| ra_targ  | 0.0   | Observer's specified target RA [deg]        |
| dec_targ | 0.0   | Observer's specified target Dec [deg]       |
| ra_nom   | 261.97579936017                                 | Nominal RA [deg]                            |
| dec_nom  | 9.0157559017645                                 | Nominal Dec [deg]                           |
| roll_nom | 113.66571215425                                 | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 7800.4282329679                                 | Sum of GTIs [s]                             |
| livetime | 7701.654513828                                  | Livetime [s]                                |
| ontime4  | 4417.5162606537                                 | Sum of GTIs [s]                             |
| ontime5  | 7800.3871929646                                 | Sum of GTIs [s]                             |
| ontime6  | 4845.3257400095                                 | Sum of GTIs [s]                             |
| ontime7  | 7800.4282329679                                 | Sum of GTIs [s]                             |
| ontime8  | 4994.410533011                                  | Sum of GTIs [s]                             |
| ontime9  | 4750.7165515721                                 | Sum of GTIs [s]                             |
| l2events | 1099417   | Number of level 2 events                    |

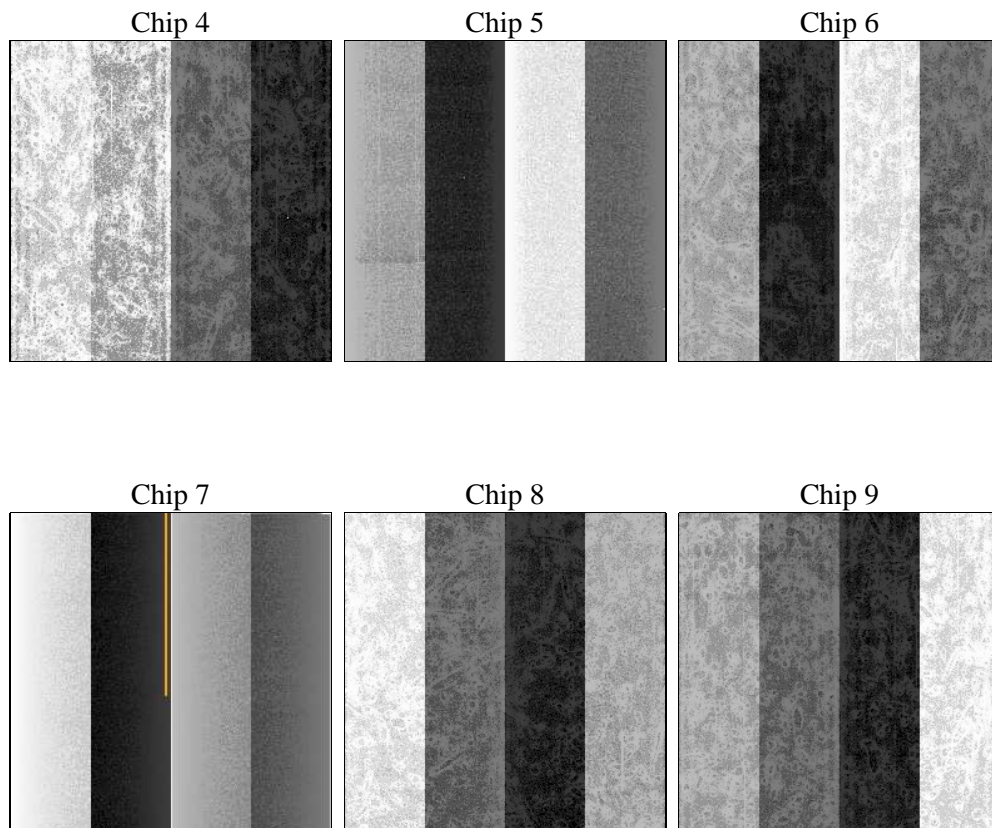
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 0.0             | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 7800.4282329679 | Sum of GTIs [s]                         |
| caldbver | 4.5.2               | &#160                          | ontime4        | 4417.5162606537 | Sum of GTIs [s]                         |
| date     | 2012-11-30T16:52:22 | Date and time of file creation | ontime5        | 7800.3871929646 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime6        | 4845.3257400095 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 7800.4282329679 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 4994.410533011  | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 4750.7165515721 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1415739         | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 4  | ccd 5  | ccd 6  | ccd 7  | ccd 8  | ccd 9  |                | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 177588 | 302520 | 202954 | 321803 | 217518 | 193356 | grade 0 events | 81686 | 56549 | 90308 | 68186 | 95062 | 86031 |
| rejected events | 36344  | 55440  | 36396  | 45867  | 41900  | 36898  |                | 45%   | 18%   | 44%   | 21%   | 43%   | 44%   |
| rejected %      | 20%    | 18%    | 17%    | 14%    | 19%    | 19%    | grade 1 events | 624   | 327   | 465   | 197   | 510   | 533   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 22229 | 88091 | 28838 | 60816 | 30439 | 26754 |
|                 |        |        |        |        |        |        |                | 12%   | 29%   | 14%   | 18%   | 13%   | 13%   |
|                 |        |        |        |        |        |        | grade 3 events | 9553  | 14801 | 10321 | 27526 | 11572 | 9956  |
|                 |        |        |        |        |        |        |                | 5%    | 4%    | 5%    | 8%    | 5%    | 5%    |
|                 |        |        |        |        |        |        | grade 4 events | 9443  | 14815 | 10075 | 27402 | 11383 | 9866  |
|                 |        |        |        |        |        |        |                | 5%    | 4%    | 4%    | 8%    | 5%    | 5%    |
|                 |        |        |        |        |        |        | grade 5 events | 2140  | 9108  | 2373  | 8470  | 2843  | 2450  |
|                 |        |        |        |        |        |        |                | 1%    | 3%    | 1%    | 2%    | 1%    | 1%    |
|                 |        |        |        |        |        |        | grade 6 events | 18333 | 72824 | 27016 | 92006 | 27162 | 23851 |
|                 |        |        |        |        |        |        |                | 10%   | 24%   | 13%   | 28%   | 12%   | 12%   |
|                 |        |        |        |        |        |        | grade 7 events | 33580 | 46005 | 33558 | 37200 | 38547 | 33915 |
|                 |        |        |        |        |        |        |                | 18%   | 15%   | 16%   | 11%   | 17%   | 17%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                       | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number    | 7         | 7       |
| Detector                          | ACIS-456789         | ACIS-456789          | Obspar file type                | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                 | Obspar update status            | NONE      | UPDATED |
| Data mode                         | FAINT               | FAINT                | On-chip summing requested       | N         | N       |
| Observation mode                  | SECONDARY           | SECONDARY            | Subarray requested              | NONE      | NONE    |
| [deg] Pointing RA                 | 0                   | 261.9757993601736    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 9.015755901764459    | [s] Primary exposure time       | 0.000000  | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 113.6657121542514    |                                 |           |         |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.8505141146731063   |                                 |           |         |
| [mm] SIM translation stage pos    | -190.132523         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 199213398.269548    | 199213397.24454      |                                 |           |         |
| Observation start date            | 2004-04-24T17:03:18 | 2004-04-24T17:03:17  |                                 |           |         |
| [s] Observation end time (MET)    | 199227159.920154    | 199227158.89515      |                                 |           |         |
| Observation end date              | 2004-04-24T20:52:40 | 2004-04-24T20:52:38  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

## 2.3 Star Slots

## 2.4 FID Slots

## A Summary

### A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Jen Lauer       |
| V&V Date (YYYY-MM-DD)      | 2012.12.14      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 7.8004282329679 |

### A.2 Comments